What is Claimed:

1. In a photosensitive black matrix composition comprising a polymer binder, a pigment, and a dye dissolved or dispersed in a solvent system, the improvement being that said dye comprises an azo-metal complex dye.

2. The composition of claim 1, wherein said azo-metal complex dye is an azo-1,2-chrome complex dye.

3. The composition of claim 1, wherein said dye is present in said composition at a level of from 0.2-3.0 wt. %, based upon the total weight of pigment solids taken as 100% by weight.

4. The composition of claim 1, wherein said pigment comprises a silica-coated metal oxide.

5. The composition of claim 1, said composition further comprising a coupling agent.

6. The composition of claim 5, wherein said coupling agent is a trialkoxyorganosilane coupling agent.

7. The composition of claim 5, wherein said coupling agent is present in said composition at a level of about 5 wt. %, based upon the total weight of the pigment solids taken as 100% by weight.

8. The composition of claim 1, wherein said polymer binder is alkali-soluble.

9. The composition of claim 1, said composition further comprising a photopolymerizable polyfunctional acrylate or methacrylate monomer or mixture of monomers, with each monomer having one or more ethylenically unsaturated double bond per molecule.

10. The composition of claim 1, said composition further comprising a free-radical generating photoinitiator capable of operating effectively at exposure wavelengths of less than 400 nm.

11. The composition of claim 10, wherein said photoinitiator comprises an amine-substituted acetophenone combined with thioxanthone and octyl *N,N*-dimethylaminobenzoate.

12. The composition of claim 4, wherein said pigment comprises a metal oxide selected from the group consisting of copper oxides, manganese oxides, cobalt oxides, nickel oxides, chromium oxides, iron oxides, and mixtures thereof.

13. The composition of claim 1, wherein said dye is selected from the group consisting of Solvent Black 27, Solvent Black 28, Solvent Black 29, and Solvent Black 45.

14. The composition of claim 13, wherein said dye is Solvent Black 28 and is present in the composition at a level of 1 wt. %, based upon the total weight of the pigment solids taken as 100% by weight.

15. The composition of claim 1, wherein said composition, when formed into a film having a thickness of 1 micron or less and cured, has a volume resistivity of greater than 10^8 ohm-cm and an optical density of greater than 3.0.

16. The composition of claim 4, wherein said pigment has a primary particle size sufficient to allow filtration at resolutions small than 1 micron.

17. The composition of claim 16, wherein said pigment particle size is from 0.01-0.02 micron, and at least 50 wt. % of the pigment particles have a primary particle size of less than 0.02 microns.

18. The composition of claim 4, wherein said silica-coated metal oxide pigment is Pigment Black 26.

19. The combination of a substrate having a surface and the composition of claim 1 applied to said substrate surface.

20. The combination of claim 19, wherein said substrate comprises glass.

21. The combination of claim 19, wherein said composition comprises a cured film on said substrate.

22. The combination of claim 21, wherein said film has a thickness of 1 micron or less, a volume resistivity of greater than 10^8 ohm-cm, and an optical density of greater than 3.0.

23. The combination of claim 19, wherein said azo-metal complex dye is an azo-1,2-chrome complex dye.

24. In a photosensitive black matrix composition comprising a polymer binder dissolved or dispersed in a solvent system, the improvement being that said composition further comprises an azo-metal complex dye, a coupling agent, and a metal oxide pigment.

25. The composition of claim 24, wherein said coupling agent is a trialkoxyorganosilane
coupling agent.

26. The composition of claim 24, wherein said pigment comprises silica-coated metal oxide pigment.

27. The composition of claim 25, wherein said pigment comprises silica-coated metal oxide pigment.

28. The composition of claim 24, wherein said azo-metal complex dye is present in said composition at a level of 0.2-3.0 wt. %, based upon the total weight of the pigment solids taken as 100% by weight.

29. The composition of claim 24, wherein said azo-metal complex dye is an azo-1,2-chrome complex dye.

30. The combination of a substrate having a surface and the composition of claim 50 applied to said substrate surface.

31. The combination of claim 30, wherein said substrate comprises glass.

32. The combination of claim 30, wherein said composition comprises a cured film on said substrate.

33. The combination of claim 32, wherein said film has a thickness of 1 micron or less, a volume resistivity of greater than 10^8 ohm-cm, and an optical density of greater than 3.0.

34. The combination of claim 30, wherein said azo-metal complex dye is an azo-1,2-chrome complex dye.

35. A method of forming a photosensitive black matrix comprising the steps of:

applying a quantity of the composition of claim 1 to a substrate so as to form a film thereon;

baking said film;

exposing said baked film to energy;

developing said exposed film; and

curing said exposed film.

36. The method of claim 35, wherein said exposing step comprises exposing said film at 200-2000 mJ/cm^2 of energy.

37. A method of forming a photosensitive black matrix comprising the steps of:

applying a quantity of the composition of claim 24 to a substrate so as to form a film thereon;

baking said film;

exposing said baked film to energy;

developing said exposed film; and

curing said exposed film.

38. The method of claim 37, wherein said exposing step comprises exposing said film at 200-2000 mJ/cm^2 of energy.